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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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JESSE1

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EXAMINER

ZHOU, SHUBO

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,791	Applicant(s) JESSE, TACO PETER	
	Examiner SHUBO (Joe) ZHOU	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 1-10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Amendments

Applicant's preliminary amendment to the specification filed 3/16/06 is acknowledged and entered.

Drawings

The drawings filed 7/11/05 are objected to because Fig. 2 is not legible. Corrected drawings in compliance with 37 CFR 1.121(d) are. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

Claims 1-10 are objected to because of the following reasons including informalities:

It appears that the phrase "steps (f-h)" recited in claim 1, step (i) should have been "steps (f)-(h)."

It appears that the phrase "[m]ethod according claims ..." recited in each of claims 4-6 should be "[m]ethod according to claims"

Claim 4 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim *should refer to other claims in the alternative only*. See MPEP § 608.01(n). Accordingly, claim 4 has not been further treated on the merits.

Claims 5-10 are also objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim *cannot depend from any other multiple dependent claims*. See MPEP § 608.01(n). Accordingly, claims 5-10 have also not been further treated on the merits.

Appropriate correction is required.

Status of the Claim

Consequently, while claims 1-14 are presently pending, only claims 1-3 and 11-14 are under examination on the merits.

Claim Rejections-35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 11-14 are rejected under 35 U.S.C. 101 because the claims appears to be drawn to a process -- a “use” -- without setting forth any steps involved in the process, which results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under

35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966) and MPEP 2173.05(q) "Use" Claims.

Note that claims 1-3 are not rejected under 35 USC 101 for being directed to nonstatutory subject matter because the examiner interprets that at least steps (c)-(e) and (g) and physical steps that achieve a physical transformation.

Claim Rejections - 35 USC § 112

The following is a quotation of the **second** paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 and 11-14 are rejected under 35 U.S.C. 112 , second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "such as" recited in claim 1, step (c), renders the claim indefinite because it is unclear whether the limitations following the phrase – BAC or YAC -- are part of the claimed invention. See MPEP § 2173.05(d).

The use of the word "respectively" in claim 1 is confusing in the limitation "wherein the forward and reverse AFLP primers used in step (b) and (e) comprise K respectively L selective nucleotides at the 3'-end of the primers." It is unclear whether the word "respectively" means that the forward and reverse primers in step (b) or (e) comprise, respectively, K and L selective

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nucleotides at the 3'-end of the primers (i.e. the forward primers in both steps (b) and (e) comprise K nucleotides in their 3'-end, and the reverse primers in both steps (b) and (e) comprise L nucleotides in their 3'-end), or it means that the either the forward primers or the reverse primers, or both, in steps (b) and (e) comprise, respectively, K and L selective nucleotides at the 3'-end of the primers (i.e. either the forward or the reverse or both primers in step (b) comprise K selective nucleotides at the 3'-end of the primers while comprising L selective nucleotides at the 3'-end of the primers in step (e).

Similar confusion arises in the similar limitation recited in claim 2.

The phrase “an AFLP fragment identified in (b)” recited in claim 1, step (f) lacks sufficient antecedent basis. Step (b) in claim 1 does not “identify” an AFLP fragment. The claim is rejected also for similar phrases recited in steps (g) and (i).

Claims 11-14 provide for the use of AFLP or AFLP primers. However, since the claims do not set forth any steps involved in the method/process (use), it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. *Ex parte Erlich*, 3 USPQ2d 1011 (Bd. Pat. App. & Inter. 1986). See also MPEP 2173.05(q) “Use” Claims.

Clarification of the metes and bounds of the claims is requested.

Claim Rejections-35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 11-14 are rejected under 35 U.S.C. § 102(b) as being anticipated by Klein et al. (Genome Research, Vol. 10, pages 789-807, 2000).

The claims are drawn to a method for providing an integrated genetic and physical map of a genome or part thereof, the method comprising the steps of: (a) providing at least two individual genetic markers for the genome or part thereof, preferably in the form of a genetic map; (b) characterizing the genetic markers by means of at least one AFLP fragment identified through AFLP fingerprinting; (c) providing a library of clones comprising fragments of the genome or part thereof, preferably an artificial chromosome library such as a BAC or YAC; (d) generating a multitude of pools, each pool containing a multitude of individual clones from the library; (e) generating an AFLP fingerprint for each of the pools; (f) identifying in the multitude of pools a pool in which an AFLP fragment identified in (b) is present in the fingerprint of the pool; (g) generating an AFLP fingerprint for each of the individual clones in the pool identified in (f), and identifying the clone containing the AFLP fragment identified in (b) in its AFLP fingerprint; (h) generating a contig comprising the individual clone identified in step (g); (i) repeating steps (f-h) for at least a second AFLP fragment identified in (b) whereby the second or further AFLP fragments characterize a second or further genetic marker; and, (j) linking at least two of the contigs obtained in (h) to thereby obtain an integrated physical and genetic map of the genome or part thereof, which comprises at least two genetic markers; wherein the forward and reverse AFLP primers used in step (b) and (e) comprise K respectively L selective nucleotides at the 3'-end of the primers, wherein the forward and reverse AFLP primers used in step (g)

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comprise M respectively N selective nucleotides at the 3'-end of the primers, wherein K, L, M, N are integers from 0 to 10, and wherein $K+L \geq M+N$.

In view of the indefiniteness of the claims for reasons set forth above, the art is being applied to the best interpretation of the claims as written.

Klein et al. disclose a method for using AFLP fingerprinting to link genetic markers with physical markers to generate a physical map. The method comprises providing a plurality of genetic markers including markers characterized as AFLP fragments; providing a BAC library of clones and generating a multitude of pools thereof; generating AFLP fingerprint for the pools and the clones thereof; identifying the pools and the clone containing the AFLP fragments characterizing the AFLP fragments, and generating a contig comprising the individual clones corresponding to the individual AFLP markers, wherein the forward and reverse AFLP primers used for AFLP-fingerprinting the pools and the clones are +3/+3 unique primer combinations. See at least Figs. 2-6 and pages 793, and "Methods" on pages 802-806. The steps of the method are repeated for different markers.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shubo (Joe) Zhou, whose telephone number is 571-272-0724. The examiner can normally be reached Monday-Friday from 8 A.M. to 4 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran, can be reached on 571-272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the

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USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

/Shubo (Joe) Zhou/

SHUBO (JOE) ZHOU, PH.D.

PRIMARY EXAMINER